

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-18.(canceled)

19. (new) A tube assembling device for erecting two- or three-dimensional rigid or elastic structures, comprising:

plural flexible hubs; and

plural hub-carriers, said hubs and hub-carriers being connectable to tubes to be assembled and said hubs being attachable to said hub-carriers,

said plural flexible hubs each comprising:

an axial part with a hole in a middle thereof;

flexible tongues extending radially from said axial part and having a narrow part in a middle of their length; and

radial rings having catching teeth, said catching teeth being directed toward an axis of the hub,

said flexible tongues being insertable inside tubes to be assembled, said flexible tongues being one of folded at their narrow section and unfolded, links of a structure to be assembled are fixable at a base of said catching teeth,

said hub-carriers each comprising:

two pairs of half rings, one posterior pair of half rings and one anterior pair of half rings linked by four connecting lugs, said connecting lugs are offset by 90 degrees about an anterior-posterior axis;

at least one pair of tongues extending from one of the pairs of half rings and pointing in a direction of the other of the pair of half rings, so that when a tube is inserted into the hub-carrier either said pair of tongues remain outside the tube and positioning of said hub-carrier is made all along the tube, which is slightly compressed between the pair of tongues, or one tongue of said pair of tongues is inserted inside the tube and positioning of the hub-carrier occurs at an end of the tube.

20. (new) The tube assembling device according to claim 19, wherein said four connecting lugs include flexible hook-shaped radial expansions for fixing elastic links, which may bind different structural elements to be assembled and which may lock one or several said hubs that are fixable on the hub-carrier.

21. (new) The tube assembling device according to claim 19, further comprising divergent tongues extending from said anterior pair of half rings of said hub-carrier, said divergent

tongues having expansion elements extending from a surface thereof before and after a median zone of said divergent tongues, said hubs being attached to said hub-carriers by said expansion elements.

22. (new) The tube assembling device according to claim 19, wherein said at least one pair of tongues comprises a pair of convergent tongues extending from a respective one of said anterior pair of half rings of said hub-carrier that converge towards an axis of said hub-carrier and extend towards the posterior part of said hub-carrier.

23. (new) The tube assembling device according to claim 19, wherein said at least one pair of tongues comprises a pair of divergent tongues extending from a respective one of said posterior pair of half rings and extend toward the anterior pair of half rings, said divergent tongues having a maximal width superior to an open space between an adjacent two of said connecting lugs so that said divergent tongues may be locked inside the hub-carrier when said divergent tongues are pushed inside said hub-carrier.

24. (new) The tube assembling device according to claim 23, wherein said four connecting lugs have an inferior thickness at a portion where the divergent tongues are located.

25. (new) The tube assembling device according to claim 19, wherein said at least one pair of tongues comprises a pair of tongues extending from said anterior pair of half rings and a pair of tongues extending from said posterior pair of half rings, each of said tongues having a narrow proximal half part then widening in a middle part to reach a maximal width, so that when tubes to be assembled are inserted through ends of said hub-carrier, said tongues extending from said anterior pair of half rings come into an inserted tube through the posterior part of said hub-carrier and said tongues extending from said posterior pair of half rings come into an inserted tube through the anterior part of said hub-carriers, so that the two pairs of tongues cross each other and the proximal parts of each pair close on the distal parts of the other pair of said tongues which enables two tubes to be connected by their ends.

26. (new) The tube assembling device according to claim 19, wherein said four connecting lugs comprise two superior connecting lugs that link lateral posterior parts of a first one of said anterior pair of half rings to upper parts of left and right ones of said posterior half rings, and two inferior connecting lugs link lateral posterior parts of a second one said anterior pair of half rings to lower parts of left and right ones of said posterior pair of half rings.

27. (new) The tube assembling device according to claim 19, wherein said catching teeth are anchor-shaped so that a pulling force of the links to be assembled may be aimed towards many different directions without links getting loose from said teeth.

28. (new) The tube assembling device according to claim 19, wherein said catching teeth are perforated by a hole having a diameter that is large enough to allow insertion of a tube used for building the structure.

29. (new) The tube assembling device according to claim 19, wherein said radial rings have external prominent zones to lock the radial rings when inserted into the axial hole of said hub or when inserted into a radial ring of another hub.

30. (new) The tube assembling device according to claim 19, wherein a junction point between one of said radial rings and a respective one of said catching teeth is wider or thicker than other parts of said one radial ring to prevent said respective tooth from turning inside out under a pulling force of one of the links to be assembled.

31. (new) The tube assembling device according to claim 19, wherein a portion between one of said catching teeth and said axial ring has a smoothed border in order not to damage any links to be assembled therein.

32. (new) The tube assembling device according to claim 19, wherein outer sides of said anterior and posterior pairs of half rings have complementary convex and concave shapes so that two of said hub-carriers may be connected to form an oscillatable or rotatable balanced structure when placing complementary sides of two different hub-carriers face to face.

33. (new) The tube assembling device according to claim 19, wherein said at least one pair of tongues have a slightly narrower end part that is bevel-edged towards the outside to ease insertion of said at least one pair of tongues.

34. (new) The tube assembling device according to claim 19, wherein said flexible tongues of said hubs have an elongated hole at their bases so that another one of said flexible tongues may be inserted into said hole and remain fixed.

35. (new) The device according to claim 19, wherein said radial rings each have an insertion lug near the axial ring,

which enables a tongue of a first one of said hubs to be inserted inside a hole formed by said insertion lug and an axial ring of a second one of said hubs.

36. (new) The device according to claim 19, wherein a connecting portion linking one of said catching teeth to a respective one of said radial rings has at least on one side a narrow axial depressed zone to increase the flexibility of said one of said catching teeth enabling the insertion of said respective one of said radial rings and said one of said catching teeth into a tube of the structure to be assembled.